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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,185	11/29/1999	D. RENE RASMUSSEN	103059	7277

7590 01/09/2004

OLIFF & BERRIDGE PLC  
P O BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
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WALLERSON, MARK E

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 01/09/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/450,185**

Applicant(s)  
**Rasmussen et al**

Examiner  
**Mark Wallerson**

Art Unit  
**2626**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Sep 24, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 3-7, 9-12, and 14-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 9-12, and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 2626

**Part III DETAILED ACTION**

***Notice to Applicant(s)***

1. This action is responsive to the following communications: amendment filed on 9/24/03.
2. This application has been reconsidered. Claims 1, 3-7, 9-12, 14-20 are pending.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation "the test targets" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

Art Unit: 2626

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1, 3-7, 9, 11, 12, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Banker et al (Banker) (U. S. 6,275,600).

With respect to claims 1 and 12, Banker discloses an image quality analysis system for an image output device (figures 1 and 6) comprising a test pattern pertinent to image quality determination (column 2, lines 33-40); a scanner (18) that scans a hardcopy test image which has been generated by the output device based on the test pattern to form a digital raster image (column 2, lines 42-50 and 60-61); a human visual filter that filters test targets (target objects) so that the target is similar in resolution to that perceived by a human visual system (which reads on performing visual quality ranking or rating on the image based on a human perception of quality - where the rating includes measurements of resolution) (column 1, lines 56-63; column 10, lines 38-39; column 3, lines 15-20 and column 6, lines 54-64), and an image quality analysis module (104) that receives the digital raster image, distinguishes one or more test targets from the digital raster image and performs image quality analysis on the test targets to obtain results quantifying

Art Unit: 2626

image quality (column 2, line 42 to column 3, line 14) in which the results correlate with image quality deviations perceived by a human observer (column 5, line 62 to column 6, line 64).

With respect to claim 3, Banker discloses the image quality analysis module resides locally at a site of the image output device (figure 1).

With regard to claim 4, Banker discloses the image output device is a copier that contains a scanner (column 2, lines 42-50).

With respect to claim 5, Banker discloses the scanner and image quality analysis module reside remotely from the image output device (figure 6).

With regard to claim 6, Banker discloses the test pattern is stored in memory at the image output device (column 2, lines 60-67).

With respect to claims 7 and 18, Banker discloses the image output device is a copier having a scanner and an output printer section (column 2, lines 42-61), and the test pattern is in the form of a hard copy printout that is subsequently scanned into the input scanner section and output as a hardcopy (the abstract).

With regard to claims 9, Banker discloses a communication module (124) that connects the image quality analysis module (104 or 102) to a remote facility (column 10, lines 1-12) and the results of the image quality analysis are formed to the remote facility through the communication module (124) (which reads on communicating with a remote facility) (column 10, lines 1-12).

Art Unit: 2626

With regard to claim 11, Banker discloses the image quality results are independent are independent of the particular image output device or scanner used (column 3, lines 15-34).

With regard to claim 19, Banker discloses the method is automatically initiated by the copier at a predetermined time (column 2, lines 56-59).

With respect to claim 20, Banker discloses the scanning (using module 18) and analyzing (using module 102) are performed remotely from the output device (14).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10 and 14-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker in view of Jenkins (U. S. 5,365,310).

With respect to claims 10, 14 Banker differs from claim 10 in that he does not clearly disclose that the remote facility includes a diagnostic module that returns information pertinent to correcting undesirable image quality test results.

Jenkins discloses a method or remotely diagnosing copy quality defects wherein a remote facility (88 and 90) includes a diagnostic module (a service facility) (90) that returns information

Art Unit: 2626

pertinent to correcting undesirable image quality test results (column 5, line 33 to column 6, line 65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Banker wherein the remote facility includes a diagnostic module that returns information pertinent to correcting undesirable image quality test results. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Banker by the teaching of Jenkins in order to more easily allow a remote diagnostic computer to diagnose and correct copy quality defects as disclosed by Jenkins in column 2, lines 54-59.

With regard to claim 15, Jenkins discloses the communication is a service call (column 5, lines 41-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Banker wherein the communication is a service call. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Banker by the teaching of Jenkins in order to more easily allow a remote diagnostic computer to diagnose and correct copy quality defects as disclosed by Jenkins in column 2, lines 54-59.

With respect to claim 16, Banker differs from claim 16 in that he does not clearly disclose the communication is the transfer of the image quality results to the service facility. Jenkins discloses transferring the image quality results to the service facility (column 7, lines 56-68 and column 8, lines 1-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Banker wherein the communication is the transfer of the image quality results to the service facility. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Banker by the teaching of Jenkins in

Art Unit: 2626

order to more easily allow a remote diagnostic computer to diagnose and correct copy quality defects as disclosed by Jenkins in column 2, lines 54-59.

With respect to claim 17, Banker discloses analyzing the results along with predetermined image output device operating parameters and communicating information to the image output device relevant to correcting the undesirable image quality (column 5, lines 13-31).

### ***Response to Arguments***

10. Applicant's arguments filed 9/24/03 have been fully considered but they are not persuasive.

Applicant submits that the claims have been amended to clarify that they are directed to an image analysis system and method that quantify image quality results that are based on human visual system models so that **only** those differences perceivable by a human viewer are determined (further emphasis added). Applicant is arguing subject matter not being claimed.

Nowhere in the claimed subject matter does Applicant claim image quality results that are based on human visual system models so that **only** those differences perceivable by a human viewer are determined.

Applicant also submits that *Banker* teaches performing a manual visual ranking. This is erroneous. Nowhere in that cited reference does Banker disclose a **manual** visual ranking. Applicant further asserts that the reference does not teach the image quality results should conform to a human visual system. The Examiner disagrees. *Banker* clearly discloses that the



Art Unit: 2626

image quality rating is based on a human perception of quality (column 10, lines 39-39 and column 3, lines 1-20).

Applicant also submits that *Banker* does not disclose filtering or modeling so that image quality results correlate to human perceivable deviations. Again, the Examiner disagrees. *Banker* discloses that the quantitative ratings can include measurements of positional accuracy of the target objects, and the measurements detect defects such as streaks and smears (column 1, lines 57-67). Quality ratings are generated from these measurements. These streaks can also be visually perceived (column 6, lines 54-64).

### ***Conclusion***

11. All claims are rejected.
12. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R.

Art Unit: 2626

§ 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Wallerson whose telephone number is (703) 305-8581.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, DC 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry)

(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two  
2121 Crystal Drive  
Arlington, VA.  
Sixth Floor (Receptionist)

MARK WALLERSON  
PRIMARY EXAMINER



Mark Wallerson